

kind treatments, such as plant mix edges on an existing plant mix surface, shall be considered as patches. Bridge approach tie-ins, intersection tie-ins, realignments, new signals or section widening and crack pouring shall not be considered as a type of patching to be measured. The quality and condition of the patch is not to be considered in evaluating patching. It does not matter if all the patches are alligator cracked, rutted or potholed. These conditions are measured in the other distresses. Patching is an indication of the amount of surface area that has received some type of maintenance repair that may or may not be holding up. The amount of patching shall be measured as a percentage of the total surface area. Be aware that a section must have at least 6 percent of the surface area to be marked as light. Do not assume that because there is some patching a light condition exists.

The NCDOT procedure ranking patching based on its extent as shown below:

- Light:** Condition is present on 6 to 15 percent of the section.
- Moderate:** Condition is present on 16 to 30 percent of the section.
- Severe:** Condition is present on more than 30 percent of the section.

#### 3.4.5.2. Data Processing and Results

The distresses of raveling, oxidation, bleeding, and patching are combined here since these distresses were almost universally rated with *None* by the NCDOT. Raveling received a *None* rating from the NCDOT because there were no BST or slurry seals along the test course. Pathway did report some slight raveling along certain segments, but not to a high enough severity to register with the NCDOT criteria. Neither Mandli nor Roadware reported any raveling. For oxidation Mandli and Roadware reported a consistent *None* rating for the entire course; Pathway did not report any observation on oxidation; and the NCDOT consensus was that none of the sections showed oxidation. Neither the vendors nor NCDOT reported any bleeding along the surveyed path. Although some individual surveyors did report patching along the test path the consensus reference survey was that patching did not exist. Neither Mandli nor Fugro Roadware reported any patching. Pathway services reported some light patching at NC-98 mile marker 14.

#### 3.4.6. Pavement Condition Rating

##### 3.4.6.1. Definition of Pavement Condition Rating

For the NCDOT pavement management system the aforementioned distresses are combined into a single index function, the pavement condition rating (PCR). This index is defined in Equations (3.2) - (3.9).

$$PCR = 100 - A - T - Ru - Ra - B - P - O \quad (3.2)$$

Where;

- A* = alligator cracking deduct index, Equation (3.3),
- T* = transverse cracking deduct index, Equation (3.4),
- Ru* = rutting deduct index, Equation (3.5),
- Ra* = raveling deduct index, Equation (3.6),
- B* = bleeding deduct index, Equation (3.7),
- P* = patching deduct index, Equation (3.8), and
- O* = oxidation deduct index, Equation (3.9).